**Lesson 9 Demo 11**

**Troubleshooting Networking Issues**

**Objective:** Troubleshoot network issues in the Kubernetes environment

**Tools required:** kubeadm, kubectl, kubelet, and etcd

**Prerequisites:** kubeadm, kubectl, kubelet, and etcd must be installed.

Steps to be followed:

1. Getting started with an httpd-pod
2. Create an httpd Service
3. Check labels for all the Pods
4. Delete the httpd-service
5. Introducing the error

**Step 1: Getting started with an httpd-pod**

* 1. To create an httpd-pod using the following command:

**vim network-issue.yaml**

**apiVersion: v1**

**kind: Pod**

**metadata:**

**name: httpd-pod**

**labels:**

**mycka: simplilearn-network-1**

**spec:**

**containers:**

**- name: mycontainer**

**image: docker.io/httpd**

**ports:**

**- containerPort: 80**

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* 1. Create the Pod by using the following command:

**kubectl create -f network-issue.yaml**

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**Step 2:** **Create an httpd Service**

* + 1. To create an httpd Service use the following code:

**vi network-issue-svc.yaml**

**apiVersion: v1**

**kind: Service**

**metadata:**

**name: httpd-service**

**spec:**

**selector:**

**mycka: simplilearn-network-1**

**ports:**

**- protocol: TCP**

**port: 18080**

**targetPort: 80**

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* 1. Create the Service by using the following command:

**kubectl create -f network-issue-svc.yaml**

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**Step 3: Check labels for all Pods**

* 1. Check the labels, selector, and endpoints by using the following commands:

**kubectl get pods --show-labels**

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**kubectl get svc -o wide**

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**kubectl get endpoints**

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* 1. Check the Service by using the following command:

**curl 10.44.0.4:80**

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Note: use the cluster ip of httpd-service

**Step 4: Delete the httpd-service**

* 1. Delete the httpd-service using the following command:

**kubectl delete svc httpd-service**

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**Step 5: Introducing the error**

* 1. Change the selector in network-issue-svc.yaml to introduce the error using the following command:

**vi  network-issue-svc.yaml**

**apiVersion: v1**

**kind: Service**

**metadata:**

**name: httpd-service**

**spec:**

**selector:**

**mycka: simplilearn-network-2**

**ports:**

**- protocol: TCP**

**port: 18080**

**targetPort: 80**

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* 1. Create the Service by using the following command:

**kubectl create -f network-issue-svc.yam** A screenshot of a computer

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* 1. Check the labels, selector, and endpoints by using the following commands:

**kubectl get pods --show-labels**

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**kubectl get svc -o wide**

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**kubectl get endpoints**

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* 1. Check the Service by using the following command:

**curl 10.104.237.141:18080**

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